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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,877	10/10/2006	Max Braun	14558-00001-US	4477

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EXAMINER	
CHO, JENNIFER Y	

ART UNIT	PAPER NUMBER
1621	

MAIL DATE	DELIVERY MODE
03/27/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,877	BRAUN, MAX	
	Examiner	Art Unit	
	JENNIFER Y. CHO	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Receipt is acknowledged of the Response filed 1/2/2008.

Claims 13-21 are considered to be the elected invention. Claims 1-12 have been cancelled.

Priority Document

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paleta et al. (Collection Czechoslov. Chem. Commun., 35, 1970, 1304-1305), in view of Cordier et al. (US 6,509,495).

The instant claims are drawn to a hydrodehalogenation process for preparing an ester of the formula R1CFHC(O)OR2 or a diester of the formula R3OC(O)CFHC(O)OR3 from a CFnXC(O) group and zinc, in an alcohol solvent, where X is chlorine. The instant claims are also drawn to the azeotrope of methyl difluoroacetate and methanol with a constant boiling point of 64ºC at ambient pressure.

Paleta et al. teaches a hydrodehalogenation method of preparing the ester, methyl difluoroacetate, from methyl difluorobromoacetate and zinc in methanol, and then further purifying the methanolic filtrate by fractional distillation (page 1304, last two lines; page 1305, first paragraph). The acid chloride can also be used as a reactant in the hydrodehalogenation reaction (page 1303, compound IIIa and IV).

The Examiner takes the position that since Paleta et al. distills methyl difluoroacetate in methanol (page 1305, first paragraph, line 4), the formation of an azeotrope of methyl difluoroacetate and methanol is inherent in the distillation process. In reference to the limitation that the azeotrope has a constant boiling point of 64ºC at ambient pressure, since the boiling point is an inherent property of the azeotrope, this

limitation would also be met by Paleta et al. since the boiling point is inseparable from the component structures of the azeotrope.

Paleta et al. is deficient in the sense that X is bromine, not chlorine for the CFnXC(O) group reactant.

Cordier et al. teaches the equivalency of bromine and chlorine for a halogen-substituted reactant in a hydrodehalogenation reaction (abstract; column 4, lines 31-36).

Therefore, it would be prima facie obvious to one of ordinary skill in the art at the time of the invention, to utilize the teaching of Cordier et al., for the substitution of chlorine for bromine on the reactant of Paleta et al. There is no showing of unusual and/or unexpected results over applicant's particular chlorinated reactant. The expected result is the hydrodechlorination of methyl difluorochloroacetate to produce methyl difluoroacetate, a valuable intermediate for the chemical industry.

Response to Arguments

Applicant's arguments have been considered but are not persuasive for the following reasons:

The Examiner acknowledges Applicant's argument that the secondary reference, Cordier et al. teaches a process for a salt and not an ester and thus is non-analogous art.

In response to Applicant's argument that Cordier et al. is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant

was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Cordier et al. is reasonably pertinent to the particular problem because Cordier et al. was merely used to show the equivalency of bromine and chlorine. Moreover, Cordier et al. teaches the use and formation of esters (column 5, line 64). Even if Cordier et al. is not exactly analogous art, the use of chlorine and bromine as alternate substituents is well-known in the art.

The Examiner acknowledges Applicant's argument that Paleta et al. teaches away from using X as chlorine.

In response to Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, the question is not whether Paleta et al. found it was important enough to use chlorine as a substituent. The question is whether one skilled in the art looking at the combination of references would find it obvious to substitute chlorine for bromine. To this degree, the Examiner submits that one of ordinary skill in the art would have a reasonable expectation of success by combining the teaching in the references.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Y. Cho whose telephone number is (571) 272 6246. The examiner can normally be reached on 9 AM - 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on (571) 272 0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jennifer Cho
Patent Examiner
Art Unit: 1621

/Samuel A Barts/
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